

## Building Safer Health IT

Health information technology (HIT) solutions are proven to be successful in improving patient safety in certain settings. For example, the implementation of computerized medication prescribing tools coupled with a barcoding system can reduce medication errors. However, it is inconclusive whether or not these HIT solutions are successful across settings. It has also been shown that poorly designed HIT can result in new patient safety issues. (Institute of Medicine [1]) HIT malfunctions may occur more frequently than previously expected and can go dangerously undetected. (Wright et al, Analysis of clinical decision support system malfunctions: a case series and survey [2])

In order to develop HIT that is truly safer, we aim to develop HIT with a systems approach. By recognizing that an HIT product is dependent on its surrounding system including other technologies, processes, organizations, and people ? care providers and patients ? we will be better poised to identify safety issues that emerge both within the HIT tool and at the intersection of the innovation and the dynamic system surrounding it. Human-centered design and the quality assurance strategies embedded in implementation science methodologies, such as testing in the live environment, communicating via reliable pathways, and proactive monitoring of external system changes, will promote the development of sustainable and safer HIT.

© 2016 The Regents of the University of California

---

**Source URL:** <https://ascent.ucsf.edu/content/building-safer-health-it>

### Links

[1] <http://www.nationalacademies.org/hmd/Reports/2011/Health-IT-and-Patient-Safety-Building-Safer-Systems-for-Better-Care.aspx>

[2] <http://jamia.oxfordjournals.org/content/early/2016/03/28/jamia.ocw005.abstract?papetoc>